UTILITIES 2018 FACTBOOK

 A closer look at Fort Collins Utilities and the world-class services provided for our community. -----• WASTEWATER

-----• STORMWATER

LIGHT & POWER







----- CUSTOMER CONNECTIONS

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INSIDE UTILITIES

222 Laporte Ave. is the first City building to earn the LEED V4 platinum rating.



OUR INTENT: to deliver a level of service our customers expect in an environmentally and socially responsible manner while making the best economic choices for the long term.

OUR PURPOSE: to provide innovative, reliable services, inspiring resilient, thriving communities.



•SERVICE ACHIEVEMENTS

•••••• CUSTOMER CONNECTIONS

Award-winning energy conservation and marketing programs

- CLEAR Consumer Education Award for demand response program
- Solsmart Gold Level Certification

• WATER

AWWA Partnership for Safe Water awards

- President's Award for Water Treatment and Distribution Excellence Award
- Gold Leader in the Colorado Department of Public Health and Environment (CDPHE) Environmental Leadership Program
- AMWA Gold Level Achievement (entire drinking water system)

WATER RECLAMATION BIOSOLIDS DIVISION AND POLLUTION CONTROL LABORATORY

Certified environmental management program and leadership award winner

- ISO 14001 Certification over six years for functional Environmental Management System
- CDPHE- Environmental Leadership Program Gold Level
- National Biosolids Partners Silver Level Recognition

• STORMWATER

Nationally recognized floodplain management system

• The City's floodplain management program is ranked in the top five out of 2,000 communities by FEMA's Community Rating System

LIGHT & POWER

100% Rating - APPA's RP3 Diamond award winner

 APPA's RP₃ Diamond award for high proficiency in reliability, safety, work force development and system improvement, 2014 and 2017



CUSIOMER CONNECTION

The new Utilities Administration Building at 222 Laporte Ave. is an important part of contributing to a more sustainable future and meeting the City of Fort Collins' aspirational Climate Action Plan goals.

- r. Customer Care assists with all aspects of utility accounts, billing, program signup and payments.
- Resource Conservation offers many diverse energy and water conservation programs for business and residential customers.
- Communication & Marketing, Community Engagement and Customer Accounts provide support for all Utilities operational divisions, including infrastructure projects, new and ongoing initiatives and campaigns, conservation goals, and rates and account communications.

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COMMUNICATIONS & MARKETING

USTOMER CONNECTIO

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CUSTOMEN

ACCOUNTS

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IMBILLS PER YEAR

Approximately 1M utility bills are issued every year (31% are electronic). **Payments totaling about \$200M are processed annually.**

Customer service representatives respond to approximately 119,000 CALLS

annually (10,000 per month). Wait time averages 1.11 MINUTES

OVERALL CUSTOMER SATISFACTION

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Four social media platforms and a website.

Utilities has a comprehensive

INCOME-QUALIFIED AFFORDABILITY portfolio of programs for those who need it most.

Community education 14,000 ADULTS & CHILDREN every year!



Fort Collins' drinking water comes from the Cache la Poudre River and Horsetooth Reservoir and is treated at the Water Treatment Facility. It is distributed to homes and businesses through more than 500 miles of water mains.





Mountain Snowpack

(high mountain reservoir)

- Snow is primary water source
- Watershed drains 564 square miles





 Water flows into the Cache la Poudre River and Horsetooth Reservoir

TREATMENT



- Treatment plant in foothills (has a 100kw solar array)
 Water Quality Lab
- Water quality 19,500+ analyses monitoring on source water, treated water

• DISTRIBUTION • Service Area is 35 square miles.

 Pipes, hydrants, valves, services



• Advanced meters on businesses and homes

 Home/business water use



35,000+ Residential = 32,000+ Commercial = 3,000+

SUPPLY: WATER RIGHTS OWNED – TOTAL **75,000 AF**

 Water supply to meet an average annual treated water demand of approximately 31,000 acre-feet (AF) during a 1-in-50 year drought in the Poudre River basin

• 8.23 BILLION GALLONS OF WATER TREATED IN 2017

Capacity 87M gallons/day

Uses a combination of settling, filtration and chemical addition

WATER DISTRIBUTION

- 500+ miles of water mains (about 3M feet)
- valves, 3,700+ hydrants
- 10,000 feet of undersized or aging water mains replaced each year
- Progressive Water Conservation Programs • Range from 2" to 60" pipe, 12,900+ since the 1970s with estimated savings of 86M GALLONS IN 2017



Q WASTEWATER

TREATMENT

ΧZ

Wastewater goes through a number of physical and biological treatment steps before it is returned to the environment.

Discharged to Fossil Creek Reservoir and Poudre River BIOSOLIDS recycling application at Meadow Springs Ranch

The Winter Quarter Average (WQA), calculates water use from Jan., Feb. and March to best represent indoor water use for wastewater billing.

Home/business plumbing systems

SOURCE

COLLECTION •

8

 Underground pipes, services, manholes

ALMOST 450 MILES OF PIPE •···· (2.3M+ feet) ••• **Two plants**, 24x7 operation with combined treatment of **29M GALLONS** per day

 Laboratories – monitor water and biosolids returned to environment (100% regulatory compliance) Some treated effluent pumped to Platte River Power Authority's Rawhide Energy Station for cooling needs as part of Reuse Plan

34,500+ ACCOUNTS Residential = 32,500+ Commercial = 2,000+

The COLLECTION SYSTEM PIPES range from 4" to 42" DIAMETER

600 feet of undersized or aging pipes replaced each year

Service area is 40 square miles.



- Less than 3 mainline blockages per year
- Closed circuit TV inspections
 - on 15% of system annually
- TREATMENT FACILITIES UV disinfection at both plants SAFE, SUSTAINABLE biosolids recycling • 579+ semi-truck loads biosolids/year
 - 26,600 acre Meadow Springs Ranch
 - working cattle ranch &
 - biosolids recycling



STORMWATER

The Stormwater Utility protects water quality in urban waterways and manages mitigation of flood risks in our community.

FLOOD WARNING SYSTEM •--





- Located in Poudre Canyon (advance warning of flood conditions)
- Data from 55 automatic rain gauges, 48 streamflow gauges and 6 automatic weather stations
- Emergency notifications available on cell phones, via text messages and emails and traditional landline phones

BASINS AND DRAINAGE SYSTEMS

x13

Service area is **57 square miles**, the city limits.

STORMWATER DRAINAGE BASINS

- Strict development regulations to protect people and structures in floodplains – rated in top 5 communities nationwide by FEMA
- Series of detention basins, open channels and underground pipes for stormwater conveyance
- ---• Stormwater ultimately drains into Poudre River (NOT to wastewater plant)



43,300+ CUSTOMERS Residential = 36,000+ Commercial = 7,300+

DETENTION BASINS More than 325 acres maintained annually

IMPROVEMENTS

- Annually replace about
 3,500 feet of undersized or aging stormwater mains, improve culverts, ditches and ponds
- Master plan of drainage improvements (pipes, detention ponds, channel restoration) provides direction for cost-effective flood protection for a 100-year rainfall event
- More than **\$100M** in stormwater infrastructure constructed since 1995

• **178 miles** of underground drainage

• **69** regional drainage channels

8,232 stormwater inlet structures

pipes, more miles of open channels

 Stream Rehabilitation Program – protects and maintains urban

watersheds





LIGHT& POWER

Fort Collins Utilities is committed to a cleaner environment, affordable electric bills and a highly reliable energy system.

GENERATION •---



 Rawhide Energy Station
 – coal-fired power generation north of city





Renewables In 2017, over 15.3% of Fort Collins' electricity came from renewable resources (wind and solar) and over 34.8% from carbon-free resources

DISTRIBUTION

- Platte River high-voltage transmission lines transmit electricity to high-voltage substations
- Utilities substations voltage reduced and delivered to homes and businesses through distribution substations and transformers
 - Advanced meters on all homes and businesses
 - Streetlights, EV charging stations
 - SCADA (Supervisory Control and Data Acquisition) system monitors and controls power distribution
 (1.955 miles)

OVER 99% OF ELECTRIC LINES UNDERGR

METERED CUSTOMERS /1,500+

Residential = 63,000+ Commercial = 8,300+ Service area is approximately 46 square miles.

Plans, designs, installs and operates all new electrical infrastructure for homes and businesses in city – including substations (7 substations & 16 transformers)

Installs and maintains streetlight system .466 Municipal streetlights

and 1.851 miles of distribution li

0 EV charging stations OUTAGE Maintains 973 Miles of high-voltage circuits

59 Floodlights



Wholesale power provider is Platte River Power Authority **OINTLY (WNFD)** by Fort Collins, Loveland, Longmont and Estes Park

More than 20 energy efficiency programs for residential and commercial customers Savings of 28,500+ megawatt-hours (28M kilowatt-hours) in 2017



Conservation programs include: **Residential** – renewable energy options, appliance and equipment rebates, recycling opportunities, efficiency assessments, sprinkler audits, demand response program, Home Energy and Water Reports and low-cost loan financing. **Business** – facilities assessments, grants and rebates, Integrated Design Assistance, multifamily partnership with Xcel Energy, renewable energy options and ClimateWise.

- 4,500 unique BUSINESS CUSTOMERS, including two regional hospitals and 400+ medical offices; high-tech manufacturing; 19 breweries and almost 400 restaurants; educational facilities (e.g., Poudre School District, Colorado State University and Front Range Community College); and more than 1,500 retail stores.
- **.**
- Part of Fort Collins' high-mountain water supply, a system of ditches and wooden stave pipe, was constructed along steep mountainsides at elevations of 10,000+ feet by early settlers. The wooden pipe was originally more than 5 miles long and some sections still are used today.
- In 2012, the two largest wildfires in the history of the Cache la Poudre River watershed burned nearly 95,000 acres of land.
 Fort Collins' drinking water quality was maintained at excellent levels.

- Fort Collins Utilities provided approximately 3,250 AF (or about 1.059B gallons) of reusable effluent to Platte River in the 2017 water year (Nov. 1, 2016 – Oct. 31, 2017).
- Meadow Springs Ranch and Soapstone Prairie Natural Area comprise the first municipal land ever used for the introduction of black footed ferrets in September 2014.
- The city's worst natural disaster occurred in July 1997, when Spring Creek flooded following 14.5 inches of rain in 31 hours. The storm's impact would have been far worse if the City had not invested more than \$5M in stormwater improvements in the Spring Creek basin in the early 1990s.
 - In September 2013, Fort Collins received up to 12 inches of rain, resulting in the largest flood event on the Poudre River in the city since 1930. Minimal damage occurred to structures, due in part to a comprehensive floodplain management program.
- 99.99% reliability
 - Over 1M minutes of service interruption was avoided due to proactive asset inspection and replacement, with only 74 unplanned outages in 2017 with an average duration of 64.11 minutes.



ATION



fcgov.com/utilities utilities@fcgov.com 970-212-2900

UTILITIES MANAGEMENT TEAM

Kevin Gertig (kgertig@fcgov.com)

- Utilities Executive Director

Lisa Rosintoski (Irosintoski@fcgov.com)

- Deputy Director, Customer Connections

Tim McCollough (tmccollough@fcgov.com)

- Deputy Director, Light & Power Operations



Auxiliary aids and services are available for persons with disabilities. V/TDD: 711 Esta información puede ser traducida, sin costo para usted.

Theresa Connor (tconnor@fcgov.com)

 Deputy Director, Water Engineering & Field Operations

Carol Webb (cwebb@fcgov.com)

 Deputy Director, Water Resources & Treatment Operations

Lance Smith (Ismith@fcgov.com) - Utilities Strategic Finance Director